Peer Review File

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Reviewer A

This is an interesting paper and the concept and approach is good. But the paper is terribly presented.

1. There is no methods section at all. There should be Methods and Results. Reply 1: We apologize for the insufficient surgical methods section. In this study, we will prepare three case reports and report it, and we are continuously increasing the patient pool for the original article, and we will do our best to present a more accurate and detailed surgical method. Thank you.

Changes in the text: None

2. The cases are presented before ANY description of the operative technique. Reply 2: We apologize for the insufficient explanation. The operative technique was omitted from "Boomerang LD flap: preoperative design" in line 82, page 4 behind the case presentation. We are very sorry about this. We have revised it to "Boomerang LD flap: preoperative design and operative technique." Changes in the text: Lines 101.

3. The term boomerang is not defined until the Discussion section!! Reply 3: Thank you for your considerate comment. We have added it to the introduction section. The case report has been made clearer than before. Thank you. Changes in the text: Lines 51-52.

4. The introduction is overstated and under-referenced. Some examples:

- the survival rate of fat cells is not very high - this is NOT referenced.

Reply 4: We have attached a reference about grafting the breast reconstruction by using LD flap and fat graft. The explanation that we intended was that although it has been reported that it is taken by approximately 50~60% when fat graft is conducted together with LD flap, multiple fat injection is generally needed for the augmentation of the volume as desired, and there are clearly surgical difficulties that follow the hundreds of cc of liposuction and delicate injection and it is difficult to claim that the volume increase from multiple procedure is very large, so it is considered as a good idea to use in case a fair amount of volume addition is necessary.

We apologize for causing the confusion because of the lack of explanation. We have revised the specific section in the paper and have added the reference.

Changes in the text: Lines 35-39. Lines 223-232.

- DIEP flap technique poses difficulties to both the patient and surgeon when a free flap is required - what does this even mean? DIEP is the gold standard!!

Reply 5: We apologize for the insufficient explanation. We intended to express that it is a perforator flap among free flaps, and that it is a high level surgery with deep inferior epigastric perforator as the main pedicle and have to conduct up until the vessel anastomosis. We have revised the phrase in the text based on your comment. Thank you.

Changes in the text: Lines 40, 42-49.

- DIEP outcomes are not particularly favorable in terms of the length of postoperative recovery or postoperative scar - this is NOT true and NOT referenced.

Reply 6: In this section, we intended to explain that the length of the donor site postoperative scar in the abdominal area is long enough that it cannot be said that it is short, and the umbilicus has to be moved to set up the position, and in the case of the tram flap, we intented to mention various risks in which there are occasionally risks for hernia to lead to complications, but it seems that we have overly exaggerated it.

Changes in the text: Lines 40, 42-49.

There is no need for this over-dramatisation.

Reply 7: We have revised it based on the comment that you provided, and the over-dramatisation has been naturally moderated. Thank you.

Changes in the text: None

Reviewer B

This is an interesting modification on a well-established technique in breast reconstruction.

However, you only present on your experience using it in three patients. This paper would benefit from a larger N, at least five but preferably ten.

Reply 8: Thank you for your comment. We prepared it as a case report to share this technique quickly, and we will continue to do our best to present an original article. Thank you.

Changes in the text: None

You only have 2-3 month follow up for 2 out of your 3 patients. You should have longer term follow up for all 3 of your patients.

Reply 9: We have revised the figure image. We have revised to a recent image since time has passed since the initial submission and organization. Thank you. For your reference, the second case patient used intraoperative photo in the menu script so the postoperative progress photo was not added, but we are sending an image together for your reference to satisfy your interest about the postoperative progress.

Changes in the text: Lines 342, 345.

Can you elaborate on "severe swelling" that you observed with one patient?

Reply 10: In the second case, swelling occurred, but based on the ultrasound, it was diagnosed as muscle swelling so while breast compression dressing is generally performed with an elastic band after the surgery, it was not conducted and due to the concerns of venous congestion from the swelling, we temporarily removed 50% of the stich of the skin suture and tried to alleviate even the small tension, and it has reached a stable recovery state 5 days after the procedure. Thank you for your thoughtful review.

Changes in the text: Lines 81-89.

Reviewer C

Congratulations about success of this novel technique. As the author said these just 3 cases and not a series of novel techniques. As such the must be treated like case report.

I would like you to mention follow up period for all pts. Seems the longest follow up for these cases was 3 mths. Possibly pictures of healed scars more than 6 mths for all 3 pts would be useful (not mandatory) as the biggest question in this reconstruction will be scar healing at donor site.

Reply 11: Thank you for your positive and helpful comment. We have revised it to the latest images compared to the images that we uploaded back when we made the submission. Thank you.

Changes in the text: Lines 342, 345.

Reviewer D

The idea "boomerang LDMC flap for total breast reconstruction" itself may be novel, but the small number of cases make it difficult to accept it as an original article. It should be resubmitted with more cases.

Reply 12: We are fully aware of the part that you pointed out. Accordingly, we are continuously preparing for the original article, and we made a submission of this study to promptly share information as a case report. We will do our best with present an outstanding original article in the near future.

Changes in the text: None